

NETWORK STATION MANAGEMENT SYSTEM AND METHOD

ABSTRACT OF THE DISCLOSURE

A system and method for configuring and managing the connectivity of a broadband, cable modem network station to a network, including a state-driven network manager having a centralized error handling state and peripheral states for initialization, dynamic host configuration, configuration download, start simple-network-management, and an operational state. The operational state monitors for error and other messages communicated from other states and sends error messages to the centralized error-handling state and request messages to an operational support system interface management task. The error handling state receives error messages and requests error event logging from the operational support system interface management task. A change upstream-or-downstream channel task optimizes channel selection. The method includes initializing the network station to a predetermined set of parameters; creating and starting a dynamic-host-configuration protocol task; creating and starting a time-of-day task; creating and starting a configuration download task; creating and starting a simple-network-management protocol task; entering an operational state upon successful initialization of the network station and connectivity with the network, and, while in the operational state, monitoring the tasks for messages, including error messages and task messages; receiving error messages and initiating error recovery in response to the error messages; and receiving request messages and sending request messages to the operational support system interface management task.